PHOTO BY ISTOCK.COM/BILANOL

Our Climate Can't Wait

CT is Falling Behind on Efficiency, Solar & 100% Clean Heat

States across New England are making admirable clean energy progress. Meanwhile, Connecticut has fallen behind, failing to replace fossil fuel energy with renewable alternatives fast enough. This continues to expose Connecticut residents to volatile fossil fuel price spikes and health-harming air pollution.

To address the issues of high prices, air pollution and climate change — and to meet state clean energy goals — Connecticut legislators must commit to ramping up clean, efficient and renewable electricity and heating. Local leaders, put people first and deliver cost effective clean energy to Connecticut residents:

Ensure sufficient funding and greater access for low-income communities and renters to energy efficiency programs that reduce consumption and lower bills.

Set ambitious goals to increase solar in Connecticut; Prioritize existing infrastructure (rooftops and parking lots) for installation; Make going solar easier and cheaper for homeowners, renters, small businesses, schools and houses of worship.

Set ambitious goals to get more heat pumps in Connecticut; Create a program to equitably install heat pumps; Require energy utilities to launch community geothermal pilots.

The problems are evident: Climate change is here and Connecticut residents are feeling the physical stress of more extreme weather. Energy prices in Connecticut are among the highest in the nation. Low-income families are disproportionately impacted by climate change, energy burden, and air pollution exposure, and have less access to clean energy to help solve these intersectional issues.

Connecticut has climate and clean energy goals in place, but no concrete steps to meet them. State statute requires a zero-carbon electric grid by 2040, 45% greenhouse gas emission reduction by 2030 and 80% by 2050.

The solutions: Localized solar energy production, heat pumps and energy efficiency measures utilize existing infrastructure and technology, come online faster, reduce stress on the electrical grid, and put power back in the hands of Connecticut residents and their elected representatives.

Connecticut must boost home efficiency and get more renewable energy onto people's roofs and into their homes. This can be done through our energy efficiency program and using available technologies like solar panels, batteries and heat pumps. Access to these clean and renewable solutions must be equitable for all Connecticut families and businesses.

Surrounding states *are already implementing these solutions* to make more homes and buildings efficient and fossil-free. It's time Connecticut catches up.

Grow Energy Efficiency to Save on Bills and Reduce Demand

Energy Efficiency helps people save money and reduces demand.

In 2024, legislators should:

- Provide additional funding for energy efficiency programs.
- Prioritize equitable delivery of energy efficiency services to low income households, environmental justice communities, and renters.

Energy efficiency saves energy and money for consumers. Reduced demand avoids unnecessary and costly system expansion and upgrades. Energy efficient homes and apartments allow for savings on the size and cost of any heat pump system installed.

Energy efficiency is the most cost effective way to save consumers money and reduce energy demand, and must be the first step to building electrification. EnergizeCT is funded by ratepayers and provides ratepayers services like energy audits and air sealing, rebates for energy saving measures like insulation and windows, and equipment like water heaters and other heating and cooling appliances.

PHOTOS BY ISTOCK.COM/MYRKU

In 2022, EnergizeCT saved residents $30.8 million in equivalent energy savings. 41,040 homes were weatherized.[1] However, in 2023, demand for the program outpaced funding, and EnergizeCT had to stop taking new customers. This instability is detrimental to Connecticut's energy consumers, the energy efficiency workforce, and limits the positive climate impact.

More equitable distribution of energy efficiency services for low-income households, particularly renters, is also needed. The most energy burdened households are sometimes the hardest to serve due to common weatherization barriers like mold, lead, and asbestos. As ratepayers, these families pay for the EnergizeCT program. They deserve equal access to its benefits.

The legislature can ensure an equitable and stable energy efficiency program by increasing funding for the energy efficiency program, and requiring a minimum level of funding to be set aside for low-income households and renters.

Let's Get More Solar in Connecticut

CT is near the bottom of New England states in per capita installed solar.

In 2024 legislators should:

- Prioritize solar by setting solar targets. This should also include battery targets for resiliency and equity targets to serve low-income households.
- Rename and revitalize SCEF (CT's community solar program), which expires in 2025.
- Get more solar on schools and businesses.
- Lift caps on solar that prevent deployment.

Massachusetts, Vermont, and Rhode Island all have nearly double the solar per capita of Connecticut.

State law mandates 100% zero-carbon electricity supply by 2040. Solar can help Connecticut get there. While offshore wind, a much-needed 100% renewable energy source, is being constructed, solar and battery storage are readily available, quick to install, and can bring big cost savings for Connecticut residents.

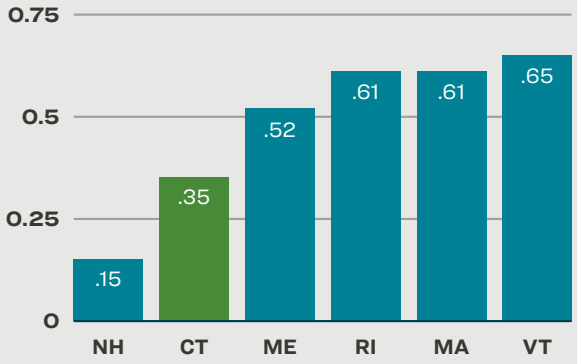
The public is eager to go solar and there is plenty of energy to go around. From 2012 to 2022, Connecticut met its first 350 MW residential solar goal.[2] Analysis[3] by the Connecticut Green Bank shows potential for between 3,800 and 6,500 MW of residential rooftop solar. In 2023, the non-residential program for solar on schools, non-profits, and businesses was in such high demand the program was filled to capacity the day it opened, and many projects were rejected.

Connecticut's modest 50 MW community solar program, Shared Clean Energy Facilities (SCEF), will sunset in 2025. Overall, a solar goal for distributed solar deployment — residential, commercial and community — should be far more ambitious to match public interest and reach Connecticut's 100% zero carbon electricity mandate by 2040. Solar goals must also include policies that quicken and ease project interconnection and accessibility.

Connecticut should quickly install and connect as much solar as possible on rooftops, businesses and parking lots. Siting solar in these locations has many benefits:

- It saves families, local businesses, schools, and municipalities money.
- It's readily available and can be deployed quickly.
- It avoids the need to use farmland and open space by prioritizing existing structures and already disturbed land.
- It grows local economies and creates jobs.
- It benefits the grid by easing fossil fuel demand and providing power during peak summer and winter hours, and during peak winter hours, according to ISO-NE.

Kilowatts Per Capita Installed Solar For New England States



SOURCE: PACE AND SEIA

In addition to advancing solar, state legislators should set battery storage goals too. Pairing solar with battery storage is a holistic approach that facilitates electric resiliency and reliability. Battery storage can also limit Connecticut's reliance on polluting fossil fuel "peaker" power plants that operate primarily in periods of high electricity demand.

To date, far more emphasis has been put on energy policies pushed by corporate lobbyists. Let's face it, more fracked gas or a new nuclear power plant would cost billions of dollars, take decades to build, and would commit local energy dollars to energy corporations operating elsewhere. With that kind of money, Connecticut could avoid fracked gas and nuclear's inherent dangers and instead blanket the state with solar and batteries that keep Connecticut energy dollars here.

Clean Heat For All

CT lacks a clean heat program to transition to clean, efficient heat pumps.

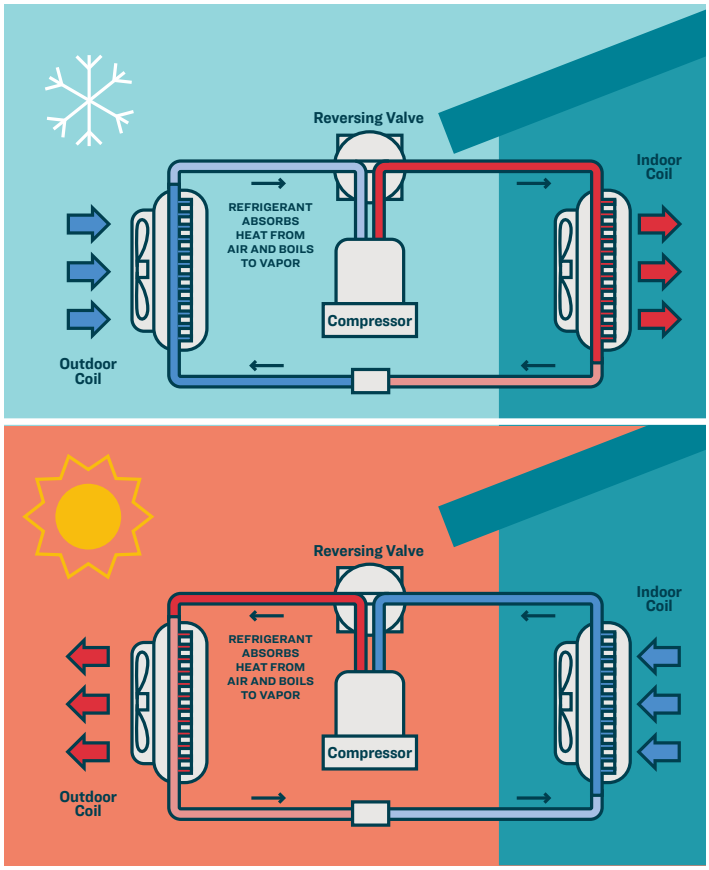
In 2024, legislators should:

- Set a target for heat pump deployment. Establish and fund a deployment program that prioritizes low-income homes, begins with an energy audit and ensures weatherization measures result in the highest return on investment.
- Require utilities to launch zero-emission networked geothermal heat pump pilots for community heating and cooling.
- Set air pollution standards for HVAC and hot water heaters to reduce pollution.

Clean heat, like solar, protects residents from volatile price spikes of oil and gas. Technological advances in space and water heating mean more cost effective and energy efficiency systems with far less air pollution. Those benefits are especially important here in Connecticut where space and water heating is expensive and air quality is poor. Heat pump versatility is also important for warming climates where cooling has become as necessary as heating.

Gas, oil, and propane burning building appliances like heating (HVAC) equipment and water heaters generate 23% of Connecticut's total NOx pollution and roughly 30% of Connecticut's total greenhouse gas emissions.[4]

HVAC and water heaters are constantly being installed in Connecticut — either in new construction or as replacements for systems that have reached the end of their useful operating capacity. Connecticut has an opportunity to help residents and improve air quality by adopting pollution standards



for HVAC and water heater systems and developing a clean heat pump deployment program.

Maine, a cold-climate state, has made the most heat pump deployment progress in New England. Maine's progress stems from legislation enacted in 2019, which established a target of 100,000 heat pumps, enhanced heat pump rebate incentives, and created a low-income heat pump program. In 2023, the state exceeded its heat pump target and set a new target: 175,000 additional heat pumps in Maine by 2027.[5] Connecticut can learn much from this example.

Heat pumps can also be integrated into a community heating and cooling system through a network of distribution pipes to serve multiple buildings, sometimes called community thermal energy networks, district-style heat pump systems, or

community heat pump systems. New York has required its gas utilities to develop these fossil-free systems. In Massachusetts, Eversource and National Grid are already developing community heat pump systems. Transitioning to heat pumps at a community level can have huge benefits to ratepayers by reducing the cost of both installation and operation.

Heat pumps paired with energy efficiency measures and solar are the most cost effective. Therefore, any heat pump program should ensure energy efficiency measures are incorporated prior to installation. Program participants should also receive information about solar programs and the benefits of whole-building electrification.

Connecticut has joined a coalition of 25 states committed to increasing the installation of heat pumps by 2030 and to air pollution standards for HVAC and water heating.[6] Additionally, federal funding from the Inflation Reduction Act provides an opportunity to develop a program for whole-home retrofits that can leverage additional funding. To provide more efficient heating and cooling, the Connecticut legislature must enact air pollution standards for HVAC units and water heaters, establish meaningful heat pump targets, and create local programs for equitable deployment.

Now is the moment for Connecticut to get on track with solar, clean heat, and energy efficiency. By investing in these practical renewable energy solutions, Connecticut can reduce pollution, create jobs, keep energy dollars in state, and meet its climate goals.

Connecticut can be energy independent. Over-reliance on foreign oil or out-of-state gas, and costly alternatives like Canadian hydropower and new nuclear power plants are not solutions. Fossil fuel energy resources pose serious risks to humans and the environment, take decades to come online, require pricey new infrastructure and negotiations with powerful corporations aiming to profit from Connecticut families and businesses.

Renewable solar power, battery storage, clean heat, and energy efficiency programs prioritize the health of Connecticut residents. These sustainable alternatives to polluting fossil fuels move Connecticut closer to achieving its clean energy goals and ensuring a livable planet for future generations.

Endnotes

1 Energy Efficiency Board 2022 Programs and Operations Report
2 Residential Solar Investment Program (RSIP) - CT Green Bank | Accelerating Green Energy Adoption in CT
3 The Addressable Solar Market in Connecticut
4 Connecticut's Hidden Air Pollution Problem: Fossil Fuels in Buildings
5 After Maine Surpasses 100,000 Heat Pump Goal Two Years Ahead of Schedule, Governor Mills Sets New, Ambitious Target
6 U.S. Climate Alliance Announces New Commitments to Decarbonize Buildings Across America, Quadruple Heat Pump Installations by 2030

CCAG Connecticut Citizen Action Group
CONNECTICUT LEAGUE OF CONSERVATION VOTERS
CT ROUNDTABLE ON CLIMATE & JOBS
clf Conservation Law Foundation
GREEN ECO WARRIORS APPROVED
The Nature Conservancy Connecticut
PACE People's Action for Clean Energy
Save the Sound Action for our region's environment.
SIERRA CLUB CONNECTICUT
THIRD ACT CONNECTICUT
CTGBC U.S. GREEN BUILDING COUNCIL CONNECTICUT CHAPTER